

Patent Claims

1. An optical receiver circuit
  - having a differential amplifier (30),
  - having an optical reception device (10), which is connected to one of the two inputs (E30a) of the differential amplifier (30), and
  - having an electrical element (50), which simulates the electrical behavior of the reception device (10) in the illumination-free case and is connected to the other of the two inputs (E30b) of the differential amplifier (30).
2. The optical receiver circuit as claimed in claim 1, characterized in that the reception device (10) and the electrical element (50) are connected to the differential amplifier (30) in each case via a preamplifier (20, 40).
3. The optical receiver circuit as claimed in one of the preceding claims, characterized in that the electrical element (50) is formed by a further, darkened reception device.
4. The optical receiver circuit as claimed in claim 3, characterized in that the reception device (10) and the further reception device (50) are monolithically integrated on a chip.

5. The optical receiver circuit as claimed in one of the preceding claims, characterized in that the two preamplifiers (20, 40) are identical.

6. The optical receiver circuit as claimed in claim 5, characterized in that the preamplifiers (20, 40) are transimpedance amplifiers.

7. The optical receiver circuit as claimed in one of the preceding claims, characterized in that an integrated control circuit (90) is present, by means of which the magnitude of the feedback impedance of the transimpedance amplifier (20, 40) can be set at the user end.

8. The optical receiver circuit as claimed in claim 7, characterized in that the integrated control circuit is connected symmetrically to the feedback impedances of the two transimpedance amplifiers (20, 40).

9. The optical receiver circuit as claimed in one of the preceding claims, characterized in that the two reception devices (10, 50) are connected to a common supply voltage (VCC1).

10. The optical receiver circuit as claimed in claim 9, characterized in that a low-pass filter is connected to the supply voltage (VCC1).

11. The optical receiver circuit as claimed in one of the preceding claims, characterized in that the two reception devices (10, 50) are photodiodes.

12. The receiver circuit as claimed in one of the preceding claims, characterized in that the receiver circuit is packaged in a TO-46 package, a TSSOP10 package or a VQFN20 package.

13. The receiver circuit as claimed in claim 12, characterized in that the at least one control terminal (S30) is formed by a terminal pin of the package.